

PATENT

Attorney Docket No. SIC-04-021

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re reissue application of: ) Examiner: Unknown  
KANJI KIRIMOTO, et al )  
Application No.: Unknown ) Art Unit: 3683  
Filed: Herewith )  
For: CABLE DISC BRAKE )  
                        ) REISSUE APPLICATION DECLARATION  
                        ) BY THE INVENTORS

Mail Stop Reissue  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Commissioner:

We hereby declare that:

Each inventor's residence, mailing address and citizenship are stated below next to their name.

We believe the inventors named below to be the original and first inventors of the subject matter which is described and claimed in patent number 6,557,671 B1 (hereinafter "the '671 patent"), granted May 6, 2003 and for which a reissue patent is sought on the invention entitled CABLE DISC BRAKE, the specification of which is attached hereto and is amended by the preliminary amendment submitted herewith.

We have reviewed and understand the contents of the above-identified specification, including the claims, as amended by the preliminary amendment submitted herewith.

We acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. §1.56.

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We verily believe the original patent to be wholly or partly inoperative or invalid by reason of the patentee claiming more or less than they had the right to claim in the patent.

At least one error upon which reissue is based is described as follows:

The specification states at column 1, lines 65-67, that one object of the invention is to provide a cable disc brake that prevents loss of efficiency during a movement of a cam mechanism under high pressure. To that end, claim 1 recites, *inter alia*, a cable disc brake comprising a caliper housing (30); a first friction member (32) movably coupled to said caliper housing (30) between a release position and a braking position; a second friction member (32) coupled to said caliper housing (30) and arranged substantially parallel to said first friction member (32) to form a rotor receiving slot therebetween; and an actuated mechanism movably coupled to said caliper housing (30) to move said first friction member (32) in an axial direction from said release position towards said second friction member (32) to said braking position. The actuated mechanism includes an input cam (90) movably mounted within said caliper housing (30) and an output cam (91) movably mounted within said caliper housing to move in an axial direction in response to rotation of said input cam (90).

While not recited in the claim, the actuated mechanism also includes an actuating assembly (36) that comprises, *inter alia*, an actuating arm (98) that rotates the input cam (90). As stated at column 10, lines 23-45, the actuating arm (98) has a cylindrical main portion (98a) with an outwardly extending cable mounting portion (98b). The cable mounting portion (98b) has a threaded bore (98g) at its free end for receiving a clamping bolt (103) with a clamping plate (104) to secure the end of an inner wire (25a) of a cable (19a) thereto. A projection (98i) is formed at the free end in the direction of the inner wire (25a) of the cable (19a). This projection (98i) has a curved surface for supporting the inner wire (25a) of the cable (19a) during rotation of the actuating arm (98).

The curved surface (98i) also prevents loss of efficiency during a movement of the cam mechanism under high pressure because it reduces the stress acting on the cable and the clamp and further distributes the forces transmitted through the cable evenly throughout the length of the curved surface. However, none of the existing claims recite any of these features.

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After the '671 patent issued, we became aware of U. S. patent number 6,520,297 B1 (hereinafter "the '297 patent"). The '297 patent narrowly claims a number of features of a cable disc brake including a lever arm that rotates around a pivot axis to actuate the disc brake. The lever arm includes a cable clamp and a guide surface, wherein the cable clamp is radially spaced from the pivot axis for fixedly attaching a cable to the lever arm at an attachment point, and the guide surface is curved about the pivot axis. The guide surface has a first portion attached to the lever arm with the attachment point essentially coincident therewith and a second portion circumferentially spaced from the first portion. The second portion extends from the first portion toward a cable guide such that the second portion is essentially tangent to a guide axis of the cable guide when the lever arm is in a non-actuated position.

In the examiner's statement of reasons for allowance of the '297 patent, the examiner stated that none of the references cited during prosecution of that case either alone or in combination provided a guide surface curved about a pivot axis having a first portion attached to the lever arm and a second portion circumferentially spaced from the first portion, the second portion being essentially tangent to a guide axis with the lever arm in a non-actuated position.

We did not appreciate the patentability of such a feature, which is clearly disclosed in our own patent, so it appears that we claimed less than we had a right to claim in our patent.

Inventor Kazuhisa Yamashita is responsible for the configuration of the actuating arm in the '671 patent, so he should be added as a co-inventor for those claims that recite specific features of the actuating arm.

All errors corrected in this reissue application arose without any deceptive intention on the part of the applicant.

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PATENT

Please direct all correspondence for this application to:

Customer Number: 29863  
James A. Deland  
**DELAND LAW OFFICE**  
P.O. Box 69  
Klamath River, CA 96050  
Telephone: 530-465-2430  
Fax: 530-465-2431

We hereby declare that all statement made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C §1001, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed.

Full Name of First Joint Inventor: Kanji Kirimoto  
Residence: Kaizuka-shi, Osaka, Japan  
Mailing Address: 1-22-6 Kashin, Kaizuka-shi, Osaka, Japan  
Country of Citizenship: Japan

Signature: Kanji Kirimoto Date: Apr. 12, 2004

Full Name of Second Joint Inventor: Tsuyoshi Sakashita  
Residence: Koube-shi, Hyouungo, Japan  
Mailing Address: 10-20-412 Tamondai 1-chome, Tarumi-ku, Kobe-shi, Hyougo, Japan  
Country of Citizenship: Japan

Signature: Tsuyoshi Sakashita Date: April. 15, 2004

Full Name of Third Joint Inventor: Kazuhisa Yamashita  
Residence: Hondo-shi, Kumamoto, Japan  
Mailing Address: 663-8 OazaHondo, Hondo-cho, Hondo-shi, Kumamoto, Japan  
Country of Citizenship: Japan

Signature: Kazuhisa Yamashita Date: APR. 3., 2004

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Attorney Docket No. SIC-04-021

**POWER OF ATTORNEY BY ASSIGNEE, CONSENT TO REISSUE,  
AND OFFER TO SURRENDER THE ORIGINAL PATENT**

Shimano, Inc. is the Assignee of the invention entitled:

CABLE DISC BRAKE

the specification of which XX is attached hereto or \_\_\_\_\_ was filed on \_\_\_\_\_  
as Application No. \_\_\_\_\_

Assignee hereby consents to the accompanying application for reissue. Assignee hereby offers to  
surrender the original patent.

Assignee hereby appoints the following attorney to prosecute this application and transact all  
business in the Patent and Trademark Office connected therewith:

JAMES A. DELAND  
Reg. No. 31,242

---

Direct Correspondence to:

JAMES A. DELAND  
DELAND LAW OFFICE  
P.O. Box 69  
Klamath River, CA 96050  
(530) 465-2430

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SHIMANO, INC.

Date: April, 15, 2004 By: Kozo Kitagawa  
(Signature)

Name: KOZO KITAGAWA  
Title: Director, Patent and Trademark Department

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Attorney Docket No. SIC-04-021

**CERTIFICATE UNDER 37 C.F.R. § 3.73(b)**

Applicant: KANJI KIRIMOTO, et al.

Application No.: To be assigned Filed: Herewith

Entitled: CABLE DISC BRAKE

SHIMANO, INC., a JAPANESE CORPORATION

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

certifies that it is:

1.  the assignee of the entire right, title and interest; or
2.  An assignee of an undivided part interest

in the patent application identified above by virtue of either:

A.  An assignment from the inventor(s) of the patent application identified above. The assignment was recorded in the Patent and Trademark Office at Reel 10851, Frame(s) 301, or for which a copy thereof is attached.

OR

B.  A chain of title from the inventor(s), of the patent application identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

Copies of assignments in the chain of title are attached.

Additional documents in the chain of title are attached:

The undersigned (whose title is supplied below) is empowered to sign this certificate on behalf of the assignee.

Date : April 15, 2004

Name : KOZO KITAGAWA

Title : Director, Patent and Trademark Department

Signature : Kozo Kitagawa

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UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

SEPTEMBER 21, 2000

PTAS

SHINJYU GLOBAL IP COUNSELORS, LLP  
DAVID L. TARNOFF  
1233 20TH STREET, N.W. SUITE 700  
WASHINGTON, D.C. 20036



\*101457613A\*

**CORRECTED  
NOTICE**

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 06/09/2000

REEL/FRAME: 010851/0301

NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

KIRIMOTO, KANJI

DOC DATE: 06/06/2000

ASSIGNOR:

SAKASHITA, TSUYOSHI

DOC DATE: 06/06/2000

ASSIGNEE:

SHIMANO, INC.  
77, OIMATSU-CHO, 3-CHO, SAKAI  
OSAKA 590-8577, JAPAN

SERIAL NUMBER: 09531570

FILING DATE: 03/20/2000

PATENT NUMBER:

ISSUE DATE:

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SEP 28 2000

SHINJYU GLOBAL  
COUNSELORS, LLP



JACQUELINE MOORE, PARALEGAL  
ASSIGNMENT DIVISION  
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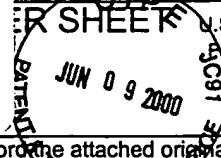
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09-21-2000

OMB No. 6514-0011(exp-4/94) MRD  
SN-US005073 10.9.00

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U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original Documents or copy thereof.

1. Name of conveying party(ies):  
(1) Kanji Kirimoto; and (2) Tsuyoshi SakashitaAdditional name(s) of conveying party(ies) attached?  Yes  No

2. Name and address of receiving party(ies)

Name: Shimano Inc.  
Internal Address:

Street Address: 77, Oimatsu-cho, 3-cho Sakai,

City: Osaka 590-8577, Country: JAPAN

Additional name(s) & address(es) attached?  Yes  No

3. Nature of conveyance:

 Assignment Merger Security Agreement Change of Name Other

Execution Date: June 6, 2000

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

Serial No. 09/531,570, filed March 20, 2000

B. Patent No.(s)

Additional Application numbers attached?  Yes  No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name:

Shinjyu Global IP Counselors, LLP  
Internal Address:Street Address: 1233 Twentieth Street, NW  
Suite 700  
City: Washington State: D.C. ZIP: 20036

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41) : \$40.00

 Enclosed Authorized to be charged to deposit account

8. Deposit account number:

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9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

David L. Tarnoff

Name of Person Signing

Signature

June 9, 2000

Date

Total number of pages including cover sheet, attachments, and document: 2

06/12/2000 MMARMOL 00000098 09531570

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Washington, D.C. 20231

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SN-US005073



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ASSIGNMENT

WHEREAS, we, (1) Kanji Kirimoto, and (2) Tsuyoshi Sakashita, citizens of Japan, residing at (1) 1-22-6, Kasbin, Kaizuka-shi, Osaka, Japan and (2) 10-20-415, Tamondai 1-choume, Tarumi-ku, Koube-shi, Hyougo, Japan, (hereinafter ASSIGNOR), have made a certain invention entitled CABLE DISC BRAKE for which we are making application for Letters Patent of the United States, which application was filed on March 20, 2000 and assigned Serial No. 09/531,570; and

WHEREAS, Shimano Inc., a corporation duly organized under the laws of Japan, located and doing business at 77, Oimatsu-cho, 3-cho, Sakai, Osaka 590-8577, Japan (hereinafter ASSIGNEE), is desirous of acquiring the entire right, title and interest in and to the aforementioned invention and the aforementioned application and any and all Letters Patent to be obtained on said invention and/or application;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN:

BE IT KNOWN that for good and valuable consideration paid to me by said ASSIGNEE, the receipt and sufficiency of which is hereby acknowledged, we, the ASSIGNORS, by these presents do hereby sell, assign, set over and transfer unto said ASSIGNEE, its successors, legal representatives or assigns, the entire right, title and interest in and to the aforesaid invention in and for the United States and all countries foreign thereto; and in, to and under the aforesaid United States application and any corresponding foreign applications and any divisional, continuing, substitute or reissue applications or supplementary disclosures which may be filed on said invention in any country; and my right to file said foreign applications and claim priority under the provisions of the International Convention; and any Letters Patent of the United States or any foreign country issued or granted on said invention and/or said applications;

AND WE HEREBY authorize and request the Patent Office or other issuing authority to issue any and all patents on said invention and/or said application to said ASSIGNEE as sole assignee; and WE further hereby authorize said ASSIGNEE to file and prosecute any of said foreign applications in its own name;

AND WE HEREBY covenant that we have the full right to convey the entire right, title and interest herein assigned and that we have not executed and will not execute any assignment or other instrument in conflict herewith;

AND WE HEREBY further covenant and agree to communicate to said ASSIGNEE, or its legal representatives, successors or assigns, any facts relating to said invention, including evidence for interference purposes or other proceedings, whenever requested, and to testify in any interference or in any other legal proceeding, when requested, and to execute and deliver on request all lawful papers required to make any of the foregoing provisions effective; and to perform the aforesaid communicating, executing and delivering, without any payment except expenses and to perform the aforesaid testifying for reasonable compensation; and generally to do everything possible to aid the said ASSIGNEE, its successors, legal representatives or assigns to obtain and enforce proper patent protection on and for said invention in all countries, and likewise we make these provisions binding upon my heirs, legal representatives and/or administrators.

IN WITNESS WHEREOF, we have hereunder set our hand and seal this 6 day of June, 2000.

Kanji Kirimoto  
Kanji Kirimoto

Tsuyoshi Sakashita  
Tsuyoshi Sakashita

Attorney Docket No. SIC-04-021

ASSIGNMENT OF PATENT APPLICATION

WHEREAS, KAZUHISA YAMASHITA  
of 663-8, OzaHondo, Hondo-cho, Hondo-shi, Kumamoto, Japan  
hereinafter referred to as "Assignor," is the inventor of the invention described and set forth in the  
below identified application for United States Letters Patent:

Title of the Invention: CABLE DISC BRAKE

Date of execution of Declaration: APR, 3, 2004

Filing date: Herewith

Serial No.: To be assigned; and

WHEREAS, Shimano, Inc., a Japanese corporation, located at 3-77, Oimatsu-cho, Sakai, Osaka, Japan,  
hereinafter referred to as "Assignee," is desirous of acquiring Assignor's interest in the invention and  
application and in any Letters Patent which may be granted on the same;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for good and valuable  
consideration, receipt of which is hereby acknowledged by Assignor, Assignor has sold, assigned and  
transferred, and by these presents does sell, assign and transfer to Assignee, and to Assignee's  
successors and assigns, all of Assignor's right title and interest in and to the invention and application,  
and in and to any Letters Patent which may hereafter be granted on the same in the United States, the  
said interest to be held and enjoyed by Assignee as fully and exclusively as it would have been held and  
enjoyed by Assignor had this Assignment and transfer not been made, to the full end and term of any  
Letters Patent which may be granted thereon, or of any division, renewal, continuation in whole or in part,  
substitution, conversion, reissue, prolongation or extension thereof.

Assignor further agrees that Assignor will, without charge to Assignee, but at Assignee's expense,  
cooperate with Assignee in the prosecution of said application and/or applications, execute, verify,  
acknowledge and deliver all such further papers, including applications for Letters Patent and for the  
reissue thereof, and instruments of assignment and transfer thereof, and will perform such other acts as  
Assignee lawfully may request, to obtain or maintain Letters Patent for said invention and improvement,  
and to vest title thereto in Assignee, or in Assignee's successors and assigns.

IN TESTIMONY WHEREOF, Assignor has signed his/her name on the date indicated.

Kazuhisa Yamashita  
KAZUHISA YAMASHITA

Date: APR. 3, 2004